

## What claim is claimed

1. A method of calling service among devices in home network, comprising steps of:

5 a. a service calling party obtains a service handle of the called service by using the characterized information of the service, sends a service calling request information to a called party by using the obtained service handle;

b. the protocol stack of the called party determines whether or not the called service exists based on the service handle of the called service contained in the request information and whether or not the called service has established a renting relationship with the service calling party after receiving the request information, if it is, the called sends service call response message containing service call result to the service calling party and proceeds into step c; otherwise, the flow is ended;

10 c. after receiving the service call response message, the protocol stack of the service calling party determines whether or not the service exist in the calling party based on the service handle of the calling service included in the response message, and whether or not the calling service has established a renting relationship with the called party, if it is, the service calling party and the called party start the actual interacting processing of the service call; otherwise, the flow is ended.

20 2. The method according to claim 1, further comprising the step of obtaining a service handle for uniquely identifying the service after the service registration of the each of the services is successful.

25 3. The method according to claim 1, wherein the step a of obtaining said service handle further comprising the steps of:

a1. the service calling party search whether or not the called service exist in local protocol stack by using the characteristic description of the called service, if it is, the service handle of the called service is returned, and end the searching process; if not, step a2 will be executed;

30 a2. the service calling party search whether or not the called service exist in other home network devices by using the characteristic description of the called service, if it is, the service handle of the called service is returned, and set the party which can provide the called service as the called party; otherwise, the flow will be ended.

4. The method according to claim 1, wherein said step c comprising at least a basic service call process, each of the basic service call processes comprising steps of:

40 c1. the service calling party sends service call request message to the service called party through the protocol stack of the service calling party and the protocol stack of the service called party sequentially;

c2. after receiving the request message, the called party returns a service call response message containing the information required by the calling party to the calling party through the protocol stack of the service called party and the protocol

stack of the service calling party sequentially.

5        5. The method according to claim 4, wherein the protocol stack of the service calling party and the protocol stack of the service called party process the service call request message and the service call response message by using a service call request call-back function and a service call response call-back function which are provided by called service and calling service respectively.

10       6. The method according to claim 5, wherein the service call request call-back function and the service call response call-back function are transferred to the local protocol stack by an application corresponding to the current registered service when the service is registered.

15       7. The method according to claim 1, wherein further comprising the step of after the service calling party or the service called party determine that the service calling party has established renting relationship with the service called party, determining whether or not the number which the service is called currently exceeds a parallel-sending control threshold of the called service, if it is, the called party sets a denying-call to the service call result; otherwise, the called party sets an allowing-call  
20       to the service call result.